UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/750,234	12/27/2000	Linden Minnick	10559-386001 / P10193	6622

20985 7590 05/12/2005

FISH & RICHARDSON, PC
12390 EL CAMINO REAL
SAN DIEGO, CA 92130-2081

EXAMINER	
PHAN, TAM T	

ART UNIT	PAPER NUMBER
2144	

DATE MAILED: 05/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/750,234	MINNICK, LINDEN	
	Examiner	Art Unit	
	Tam (Jenny) Phan	2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 January 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-12,14-22 and 24-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-12,14-22 and 24-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 December 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Amendment received on 1/19/2005 has been entered. Claims 1, 7, 12, 18, 22, and 27 are currently amended. Claims 2, 13, 23 are cancelled. Claims 3-11, 14-21, 24-29, and 30-32 are previously presented.

2. Claims 1, 3-12, 14-22, and 24-32 are presented for examination.

Priority

3. No priority claims have been made.

4. The effective filing date for the subject matter defined in the pending claims in this application is 12/27/2000.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1, 5-7, 12, 16-18, 22, and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pickreign et al. (U.S. Patent Number 6,732,246), hereinafter referred to as Pickreign, in view of Saxena et al. (U.S. Patent Number 5,893,926), hereinafter referred to as Saxena, further in view of Sharma et al. (U.S. Patent Number 6,647,469), hereinafter referred to as Sharma.

7. Regarding claim 1, Pickreign disclosed a method comprising allocating space in a host memory for use as a buffer (Figures 1 & 3, column 1 lines 41-56, column 2 lines 5-9); copying contents of a memory of a network interface controller into the buffer (Figures 1 & 3, column 1 lines 41-56, column 2 lines 5-9, claim 1); and accessing the

buffer in response to a request for information in the network interface controller memory (column 6 lines 46-63, column 7 lines 41-44).

8. Pickreign taught the invention substantially as claimed. However, Pickreign did not expressly teach accessing *the contents of* the buffer in response to a request for information in the network interface controller memory.

9. Pickreign suggested exploration of art and/or provided a reason to modify the method for accessing information from memory with additional features such as accessing buffer contents (column 7 lines 26-39, lines 46-50).

10. Saxena disclosed a method for transferring data wherein the device driver can subsequently access data buffer directly (column 4 line – column 5 line 3, column 5 lines 35-38).

11. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the method of Pickreign with the teachings of Saxena to include the content access feature in order to allow the content of the buffer to be accessed quickly without any access checking or address conversion delays during processing of a data transfer request (Saxena, column 4 line – column 5 line 3, column 5 lines 35-38).

12. The combination of Pickreign and Saxena taught the invention substantially as claimed. However, the combination of Pickreign and Saxena did not expressly teach updating [modifying] the contents of the network interface controller memory and correspondingly updating [modifying] the contents of the buffer [data coherency].

13. Saxena suggested exploration of art and/or provided a reason to modify the combined method of Pickreign and Saxena with additional features such as mirroring or

coherency feature to ensure data integrity (column 1 lines 28-46, column 6 line 65 – column 7 line 17).

14. Sharma disclosed a method of updating [modifying] the contents of the network interface controller memory and correspondingly updating [modifying] the contents of the buffer [the memory controller ensures that the data stored in system memory is accurately and precisely mirrored in all subservient copies of that data as might typically be stored in agent cache memories] and [the memory controller implements a first set of rule in the coherent mode of operation to insure that all copies of data stored by the agents are coherent with data stored in the memory] (Abstract, column 3 lines 62-64, column 5 lines 11-17).

15. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the method of Pickreign with the teachings of Sharma to include the data coherency feature in order to prevent the content in the buffer from become stale prior to use by the host memory (Sharma, column 3 lines 62-64, column 4 lines 5-9).

16. Regarding claim 5, Pickreign disclosed a method further comprising: initializing a physical layer; and subsequently initializing the buffer to store the contents of the network interface controller memory (Figure 3, column 3 lines 50-61, column 6 lines 53-63).

17. Regarding claim 6, Pickreign disclosed a method wherein the network interface controller memory comprises an EEPROM (Figure 1, column 1 lines 28-32).

18. Regarding claim 7, Pickreign and Sharma combined disclosed a method comprising: copying contents of a network interface controller memory into a buffer in

host memory (Pickreign, Figures 1 & 3, column 1 lines 41-56, column 2 lines 5-9, claim 1); recopying the contents of the network interface controller memory into the buffer if the contents of the network interface controller memory are modified (Sharma, Abstract, column 3 lines 62-64, column 5 lines 11-17); and accessing the contents of the buffer in response to a request for information in the network interface controller memory (Pickreign, column 6 lines 46-63, column 7 lines 41-44; Saxena, column 4 line – column 5 line 3, column 5 lines 35-38).

19. Regarding claims 12 and 16-17, the apparatus corresponds directly to the method of claims 1 and 5-6, and thus these claims are rejected using the same rationale.

20. Regarding claim 18, the apparatus corresponds directly to the method of claim 7, and thus is rejected using the same rationale.

21. Regarding claims 22 and 26, the article comprising a computer readable medium corresponds directly to the method of claims 1 and 5 and the apparatus of claims 12 and 16, and thus is rejected using the same rationale.

22. Regarding claim 27, the article comprising a computer readable medium corresponds directly to the method of claim 7, and thus is rejected using the same rationale.

23. Since all the limitations of the claimed invention were disclosed the combination of Pickreign and Sharma, claims 1, 5-7, 12, 16-18, 22, and 26-27 are rejected.

24. Claims 3-4, 8-11, 14-15,19-21, 24-25, and 28-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pickreign et al. (U.S. Patent Number

6,732,246), hereinafter referred to as Pickreign, in view of Saxena et al. (U.S. Patent Number 5,893,926), hereinafter referred to as Saxena, in view of Sharma et al. (U.S. Patent Number 6,647,469), hereinafter referred to as Sharma, further in view of Shah et al. (U.S. Patent Number 6,470,397) hereinafter referred to as Shah

25. Regarding claim 3, Pickreign and Saxena disclosed a method comprising allocating space in a host memory for use as a buffer; copying contents of a memory of a network interface controller into the buffer; and accessing the contents of the buffer in response to a request for information in the network interface controller memory (Figures 1 & 3, column 1 lines 41-56, column 2 lines 5-9, column 6 lines 46-63, column 7 lines 41-44, claim 1; Saxena, column 4 line – column 5 line 3, column 5 lines 35-38). Sharma disclosed a method of updating [modifying] the contents of the network interface controller memory and correspondingly updating [modifying] the contents of the buffer [the memory controller ensures that the data stored in system memory is accurately and precisely mirrored in all subservient copies of that data as might typically be stored in agent cache memories] and [the memory controller implements a first set of rule in the coherent mode of operation to insure that all copies of data stored by the agents are coherent with data stored in the memory] (Abstract, column 3 lines 62-64, column 5 lines 11-17).

26. The combination of Pickreign, Saxena, and Sharma taught the invention substantially as claimed. However, the combination of Pickreign, Saxena, and Sharma did not expressly teach initializing a device driver in a Network Driver Interface Specification [NDIS] environment to allocate the space in the host memory in less than a second.

27. Pickreign suggested exploration of art and/or provided a reason to modify the method with the initializing a device driver in a NDIS environment feature [NDIS miniport is conventional in performing hardware-specific operations needed to manage the Network Interface Card] (Figure 1, column 1 lines 41-56, column 7 lines 46-51).

28. Shah disclosed a method comprising initializing a device driver in a Network Driver Interface Specification [NDIS] environment to allocate the space in the host memory (Figures 3 & 5, column 2 lines 24-37, column 6 lines 12-46) in less than a second [Ethernet emulation through multiple enhanced miniport drivers simultaneously] (column 7 lines 11-17).

29. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the method of Fesas with the teaching of Shah to include the NDIS feature in order to supports multiple Ethernet emulations (Shah, column 7 lines 11-17) since in conventional system, the NDIS miniport performs the hardware-specific operations needed to manage the Network Interface Card (Shah, column 2 lines 24-37).

30. Regarding claim 4, Pickreign and Shah combined disclosed a method comprising initializing the buffer to store the contents of the network interface controller memory wherein initializing the buffer occurs at a different time from the driver initialization (Pickreign, column 1 lines 41-56, column 2 lines 27-34; Shah, column 9 lines 64-67, column 10 lines 1-13, column 11 lines 9-22).

31. Regarding claim 8, Pickreign and Shah disclosed a method further comprising initializing a driver to allocate memory space to the buffer (Pickreign, column 1 lines 41-56, column 2 lines 27-34; Shah, column 6 lines 12-26, column 10 lines 4-13).

32. Regarding claims 9-10, 19-20, and 28, these limitations are similar to the limitations of claims 3-4, and thus these claims are rejected using the same rationale.

33. Regarding claim 11, Pickreign and Shah disclosed a method further comprising initializing the buffer to store the contents of the network interface controller memory in response to a first request to read the contents of the network interface controller memory (Pickreign, column 1 lines 41-55; Shah, Figures 3, 5, column 6 lines 12-26).

34. Regarding claims 14-15 and 24-25, the apparatus of claims 14-15 and the computer-readable medium article of claims 24-25 corresponds directly to the method of claims 3-4, and thus these claims are rejected using the same rationale.

35. Regarding claims 21 and 29, the apparatus of claim 21 and the computer-readable medium article of claim 29 corresponds directly to the method of claim 11, and thus these claims are rejected using the same rationale.

36. Regarding claim 30, Shah disclosed a method wherein correspondingly modifying the contents of the buffer occurs independently of a request by a host to access information in the network interface controller memory (Abstract, column 2 lines 30-37, column 7 lines 27-44).

37. Regarding claim 31, the apparatus corresponds directly to the method of claim 30, and thus is rejected using the same rationale.

38. Regarding claim 32, the computer-readable medium article corresponds directly to the method of claim 30, and thus is rejected using the same rationale.

39. Since all the limitations of the claimed invention were disclosed by the combination of Pickreign and Shah, claims 3-4, 8-11, 14-15,19-21, 24-25, and 28-32 are rejected.

Response to Arguments

40. Applicant's arguments filed 07/26/2004 with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

41. In response to applicant's argument that Pickreign does not teach the amended limitation of accessing the contents of the buffer in response to a request for information in the network interface controller memory, it is submitted that Saxena taught the limitation of accessing the contents of the buffer and Pickreign and Sharma are relied upon for teachings of the other claimed limitations.

42. In response to applicant's argument that "modifying the contents of the network interface controller memory and correspondingly modifying the contents of the buffer, it is submitted that Sharma disclosed "the memory controller selectively provides memory access to the agents in both coherent and read current modes of operation. In the coherent mode, the memory controller ensures that the data stored in system memory is accurately and precisely mirrored in all subservient copies of that data as might typically be stored in agent cache memories" (Abstract). It should be obvious then that in coherent mode any modification makes to the memory will correspondingly be made to the cache to keep the data in these two storage accurately and precisely mirror. For complete details, refer to the rejection above.

43. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in

the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the Examiner has properly combined the references by citing relevant passages found in the references themselves to motivate one of ordinary skills in the art to explore and reason for combining these references. Refer to the above rejection for details.

44. In response to applicant's argument that Shah did not teach initializing a device driver in a Network Driver Interface Specification [NDIS] environment to allocate the space in the host memory in less than a second, it is submitted that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, Pickreign was relied upon for the teaching of allocate the space in the memory and Shah was relied upon for the teachings of initializing a device driver in a Network Driver Interface Specification [NDIS] environment in less than a second.

45. As the rejection reads, Examiner asserts that the combination of these teachings render the claimed invention obvious.

Conclusion

46. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

47. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Refer to the enclosed PTO-892 for details.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tam (Jenny) Phan whose telephone number is (571) 272-3930. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Wiley
SPE
Art Unit 2143
(571) 272-3923

tp
May 5, 2005

DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100